

The fifth submenu screen SW5 displays three items: "SMS Class" for weighing a short message according to its importance, "Change Password" used for changing a password that regulates incoming and outgoing calls within an additional service, and "Charge ACCM" used for setting a function for restraining outgoing calls that exceed a certain upper limit.

(3-2) Scroll Function

Next, a scroll function used for the portable telephone apparatus 31 to switch among a plurality of menu or submenu screens belonging to the same layer at a high speed is described in FIGS. 33 and 34.

With this scroll function, when upward movement of the cursor K is instructed while being located at the top of the items in each page, it is possible to switch the display the preceding page, and also move the cursor K to the top of the newly displayed items. In addition, when downward movement of the cursor K is instructed while being located at the bottom of the items in each page, it is possible to switch the display to the following page, and also move the cursor K to the bottom of the newly displayed items.

Therefore, the cursor K can be moved at a high speed even when an item displayed on a very remote menu screen is to be selected.

(4) Other Embodiments

In the second embodiment described above, the jog dial 36J having a rotation and a click mechanisms is used as an input apparatus for moving the cursor K and deciding an item. However, the present invention is not only limited to this, but is widely applicable to input apparatus having other structure as long as the input apparatus is used in which the operational directions for inputting the movement of the cursor K and confirming a selected item are different.

For example, a jog shuttle in which the rotating angle is limited to a specified value can be used. A track ball or a joy stick with a click mechanism can also be used. Further, a slide switch with a click mechanism can be used. Even if these apparatuses are used, it is possible to realize a communication terminal apparatus with a small number of operation keys and a good portability, as in the second embodiment described above.

In addition, in the second embodiment described above, the movable microphone 33 is provided on the main body 32. However, the present invention is not only limited to this, but is widely applicable to portable telephone apparatuses with microphone fixed.

Furthermore, in the second embodiment described above, the jog dial 36J is operated in the upward and downward directions to move the cursor K upward and downward, respectively. However, the present invention is not only limited to this, but the jog dial 36J can be operated upward and downward to move the cursor K rightward and leftward.

Furthermore, in the second embodiment described above, if the jog dial 36J is operated upward while detailed information from the telephone book list is being displayed, the display screen is switched to a menu screen belonging to the higher layer, that is, the list screen for names of communicatees, and the cursor is moved to the section displayed above the communicatees whose detailed information has been displayed. However, the present invention is not only limited to this, but, as shown in FIG. 34, detailed information on the item directly above can be displayed when the cursor is operated upward, while detailed information on the item directly below can be displayed when the cursor is operated downward. In this case, the clear key 36H can be used to return to the list screen.

Furthermore, in the second embodiment described above, names of communicatees are input to the telephone book list in alphabets. However, the present invention is not only limited to this, but names of communicatees can be input in katakana.

Furthermore, in the second embodiment described above, the jog dial 36J is used to switch from the registration section for displaying names of communicatees with high use frequency to the display section of descending order for displaying names of communicatee in the descending alphabetical order. However, this invention is not only limited to this, but an exclusive operation key or an existing operation key (for example, the "#" key) can be used to switch the display.

Furthermore, in the second embodiment described above, characters and numbers displayed on the display 35 are displayed using two types of fonts. However, the present invention is not only limited to this, but middle size fonts can be used in addition to the large and the small fonts.

Furthermore, in the second embodiment described above, a SIM card is used as an ID card for storing all the management information for a subscriber. However, this invention is not only limited to this, but ID cards that conform to other standards can be used.

Furthermore, in the second embodiment described above, when the jog dial 36J is operated upward while the cursor K is positioned at the top of the items on a page, the cursor K jumps to the top of the preceding page, whereas when the jog dial 36J is operated downward while the cursor K is positioned at the bottom of the items on a page, the cursor K jumps to the bottom of the following page. However, the present invention is not only limited to this, but only the upward or the downward scroll function can be operated.

In addition, the cursor K can be moved to the following page when the jog dial is operated downward wherever the cursor K may be positioned on a page, whereas the cursor K can be moved upward by one item when the jog dial 36J is operated upward. On the contrary, the cursor K can be moved to the preceding page when the jog dial 36J is operated upward wherever the cursor K can be located on a page, whereas it can be moved downward by one item when the jog dial 36J is operated downward.

While there has been described in connection with the preferred embodiments of the invention, it will be obvious to those skilled in the art that various changes and modifications may be aimed, therefore, to cover in the appended claims all such changes and modifications as fall within the true spirit and scope of the invention.

What is claimed is:

1. A communication terminal apparatus comprising:

- a body;
- transmitting and receiving means arranged in said body;
- selection operation means arranged on said body operable by a user in a first direction along a surface of said body and in a second direction substantially perpendicular to the first direction;
- operation detection means for detecting an operation of said selection operation means in said first direction and in said second direction;
- storage means for storing data of a plurality of communicatees;
- display means for displaying said plurality of communicatees read out of said storage means; and
- control means for controlling said display means so that one of said plurality of communicatees is selected on

said display means in response to a detection result of said operation detection means when said selection operation means is operated in said first direction, and for controlling said transmitting and receiving means to originate a call to said plurality of communicatees selected on said display means in response to a detection result of said operation detection means when said selection operation means is operated in said second direction, and perform a mute operation in response to operating said selection operation means in said second direction, wherein

said control means controls said transmitting and receiving means to adjust a reception sound volume in response to operating said selection operation means in said first direction during a communication operation, and wherein

said control means controls said transmitting and receiving means to perform a mute operation in response to operating said selection operation means in said second direction.

2. A communication terminal apparatus, comprising:
a body;

a microphone rotatably mounted on said body and positionable in an opened state and a closed state, said microphone used in the opened state during a communication-operation;

transmitting and receiving means arranged in said body;

selection operation means arranged on said body for operation by a user in a first direction and in a second direction, said first and second directions being substantially perpendicular to each other;

operation detection means for detecting the operation of said selection operation means in the first and second directions;

5. (New) A portable communication terminal apparatus

comprising:

a body;

transmitting and receiving means arranged in said body;

selecting operation means arranged on said body operable by a user in a first direction along a surface of said body and in a second direction substantially perpendicular to the first direction;

operation detection means for detecting an operation of said selection operation means in said first direction and in said second direction;

storage means for storing data of a plurality of selection items which are hierarchically arranged;

display means for displaying said plurality of selection items read out of said storage means; and

control means for controlling a position of a pointer to indicate a desired item out of said plurality of selection items displayed on said display means when said selection operation means is operated in the first direction and changing a display layout when said selection operation means is operated in the second direction to change from a display listing selection items

storage means for storing data of a plurality of communicatees;

display means for displaying said data of said plurality of communicatees read from said storage means; and

control means operable when said microphone is in the opened state for reading the data of the plurality of communicatees from said storage means and for displaying read out data on said display means in response to a detection result of said operation detection means when said selection operation means is operated in the second direction a first time, said control means controlling said display means so that one of said communicatees is selected on said display means in response to a detection result of said operation detection means when said selection operation means is operated in the first direction, and said control means controlling said transmitting and receiving means to originate a call to the communicatee selected on said display means in response to a detection result of said operation detection means when said selection operation means is operated in the second direction a second time.

3. A communication terminal apparatus according to claim 2, wherein the first direction is along a surface of said body and the second direction is substantially perpendicular to the surface of said body.

4. The communication terminal apparatus according to claim 2, wherein said selection operation means is mounted to be rotatable in said first direction and to be clicked upon linear movement in said second direction.

of high hierarchy in a first format to a display listing selection items of low hierarchy in a second format, said first and second formats being recognizably different.

6. (New) The portable communication terminal apparatus according to claim 1,

wherein said control means causes said display means to display a selection item of the high hierarchy on said display together with items of the low hierarchy which are linked with said selection item.

1307104-12334